EASE DIAGNOSTICS
WIN CE/POCKET PC SCAN TOOL
USER'S MANUAL

Rev 091603

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EASE WIN CE/Pocket PC Scan Tool User's Manual
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I. SAFETY PRECAUTIONS

BEFORE WORKING ON ANY VEHICLE, PLEASE READ THIS!

- To avoid possible personal injury and damage to the vehicle, please refer to the appropriate vehicle manufacturer's service procedures and safety instructions.

- Objects can be propelled by moving engine parts. These objects and high pressure fluids and liquids can cause serious injury. ALWAYS wear an ANSI approved eye protection.

- Ensure all sparks, lighted cigarettes, open flames, or any other device capable of producing a high temperature are not utilized near automotive batteries. Automotive batteries contain sulfuric acid and produce explosive gases.

- Ensure a safe distance from all moving engine components during servicing. Test equipment, clothing, and parts of your body can be seriously damaged or injured.

- An operating engine produces carbon monoxide, which is an odorless, colorless, poisonous gas that can lead to serious injury or death. ALWAYS service an operating engine in a well-ventilated area.

- Fuel systems are typically under high pressure. Ensure the area is well ventilated and free of all sparks or other ignition sources to avoid the possibility of fire.

- Ensure the parking brake is engaged, the vehicle's drive wheels are blocked, and the gear selector is in neutral for manual transmissions and in park for automatics.

- Never set tools on a vehicle's battery. You may short the terminals together causing harm to yourself, the tools or the battery.

- NEVER attempt to operate this software and drive the vehicle at the same time. ALWAYS have another person to use the software while the vehicle is being driven.

- Do not leave your vehicle unattended while running tests.

II. SOFTWARE LICENSE AGREEMENT

PLEASE READ ALL OF THE TERMS OF THIS AGREEMENT PRIOR TO INSTALLING THE SOFTWARE. BY INSTALLING THE SOFTWARE, YOU ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT.

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10. Complete Agreement: This License constitutes the entire agreement between the parties with respect to the use of the Software and related documentation, and supersedes all prior or contemporaneous understandings or agreements, written or oral, regarding such subject matter. No amendment or modification of this License will be binding unless in writing and signed by a duly authorized representative of EASE Simulation, Inc.

Should you have any questions concerning this Agreement, please call or write the manufacturer: EASE Simulation, Inc., State Route 492 Box 3011, New Milford, PA 18834 USA 570-465-9060.

III. LIMITED WARRANTY

EASE Simulation, Inc. (EASE) warrants to the original licensee that the diskette(s) on which the software is recorded be free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of delivery as evidenced by a copy of your receipt. If a defect in the disk(s) should occur during this period, you may return the disk to EASE and we will replace the disk(s) without charge. EASE warrants that for a period of thirty (30) days from the date of delivery to you the licensee, the software shall materially conform to the specifications defined in pertinent documentation relating thereto (manuals, guides, exclusion documents, and computer-aided instructions).

EASE does not warrant that the operation of the software will be uninterrupted or error free. Further, EASE does not warrant or guarantee the use of, or the results of the use of, the software in terms of correctness, accuracy, reliability, currentness, or otherwise; you rely on the software and results solely at your own risk. The licensee's sole and exclusive remedy for failure of the software to materially conform to the specifications defined in the pertinent documentation is for the licensee to return the software to EASE and notify EASE in writing of such non-conformity within thirty (30) days of delivery to the licensee. EASE's sole obligation shall be, at EASE's option, within a reasonable time after EASE receives notice of non-conformity, to either provide the licensee with software, which conforms to the express warranty above, or refund to the licensee the licensee fee paid therefore. In the event of a refund, this agreement shall be considered terminated and the licensee, if they have any copies of the software or related materials, shall promptly deliver to EASE and/or destroy all such copies (including that in memory or data storage apparatus) and warrant in writing to EASE within thirty (30) days of termination that the licensed software, related materials and all copies thereof have been either returned and/or destroyed.

To the original purchaser only, EASE warrants the supplied hardware products to be free from defects in materials and workmanship under normal use for a period of one (1) year from the date of purchase as evidenced by a copy of the sales receipt. EASE makes no other express warranty on the hardware products. The purchaser's sole remedy in the event of a breach of warranty is expressly limited to repair or replacement of the defective hardware or, if replacement is not possible, a refund of the purchase price. Repair parts and replacement hardware products will be provided on an exchange basis and will be either reconditioned or new. All replaced parts become property of EASE. This limited warranty does not cover damage to the products resulting from misuse, accident, disaster, abuse, negligence, improper maintenance, or modification and/or repair of the hardware product other than by EASE.

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Note: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you.

The information presented in this manual is believed to be accurate. Responsibility for errors, omission of information, or consequences resulting from the use of this information cannot be assumed by EASE. EASE retains all rights to make changes to specifications at any time without notice.

How to reach EASE

- Customer Service is available at **888-366-3273** from 9:00 am to 5:00 PM Eastern Standard Time. Please have your sales order or invoice number available when you call.
- By Telephone: **570-465-9060**.
- By Fax: **570-465-9061**
- By Mail: EASE Diagnostics State Route 492 Box 3011, New Milford, PA 18834 USA
- By e-mail info@obd2.com. Our website is located at www.obd2.com

IV. TECHNICAL SUPPORT

If you have questions about the use of this product, first check the relevant portion of the Users Manual, the EASE Software Help System or refer to the EASE website. If you cannot find the answer in these places, call our Technical support line at 570-465-9062 ext 252. This support line is answered Monday through Friday from 9:00 am to 5:30 PM Eastern Standard Time. At other times, please leave a message and the call will be returned. Also, you can e-mail your questions or comments to techsupport@obd2.com.

V. PDA REQUIREMENTS

The Scan Tool software supports the following WIN CE/PocketPC devices*.

IMPORTANT: All devices must be running Windows CE 3.0 or higher, Pocket PC 2002 or Pocket PC 2003 and they must have an SH3, MIPS, StrongARM or X-Scale processor.

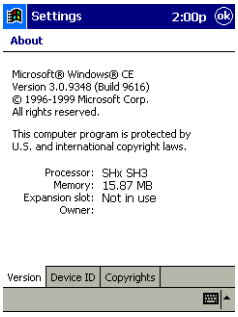
- HP Jornada Pocket PC- All series
- IPAQ pocket PC- All series
- Audiovox Maestro Pocket PC's
- Intermec Pocket PC's
- Symbol PDT & PPT Pocket PC's
- Toshiba e570 Pocket PC
- Casio Cassiopeia E-200 series, E-125, EG-800 Series, EM 500 Series, IT-70 Series, IT-700 Series
- Dell Axim X5

If your PDA is not listed, contact EASE for more information at 888-366-3273. If your PDA is running Windows CE Version 3.0, Pocket PC 2002 or Pocket PC 2003, has an SH3, StrongARM or X-Scale processor, and has a serial (9-pin) cable, then it should work with the EASE WIN CE Scan Tool software.

How do I know what version of Windows CE and which processor my PDA is using?

To determine what version of Windows CE and which processor it is using do the following.

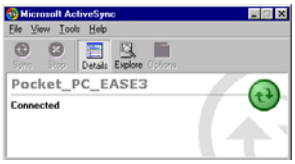
1. Settings From the Start menu choose Settings.
2. Tap on the System tab on the bottom of the Settings Screen.
3. About Tap the About icon.
4. Tap the Version tab on the bottom of the About Screen.



In the About screen the Microsoft Windows CE version is listed and the Processor. If your PDA is running Windows CE Version 3.0 or Pocket PC 2002 and has an SH3 or StrongARM processor then it should work with the EASE WIN CE Scan Tool software.

*__IMPORTANT__: In addition to a supported device, the Scan Tool software requires a serial (9-pin) cable to connect the PDA Vehicle Interface to the WIN CE/Pocket PC Device. If you use a docking cradle or a USB cable to transfer files between the desktop PC and WIN CE/Pocket PC Device, you must purchase a serial cable for your device in order to use the Scan Tool software to connect to a vehicle. This cable is not the same for all manufacturers or models. You must purchase the cable specified for your device. A list of supported WIN CE/Pocket PC models and their correct serial cable part numbers is listed in Appendix A.

VI. STEP-BY-STEP SOFTWARE INSTALLATION INSTRUCTIONS



Use the following instructions to install the EASE Scan Tool software on your WIN CE/PocketPC device.

1. Connect the CE/POCKET PC device to the PC. The device must be powered on.

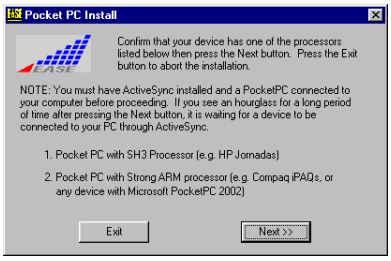
IMPORTANT: You must have ActiveSync installed on your PC. Microsoft ActiveSync is used to transfer files from your PC to your hand held device. This software is included when you purchase a CE/Pocket PC device.

Microsoft ActiveSync

2. Place the EASE software installation CD in your desktop PC CD-ROM drive. The CD will start automatically.

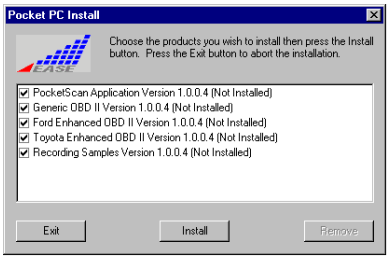
NOTE: If the CD does not start automatically, double-click the My Computer icon on the Windows desktop. Locate the CD-ROM drive in the window, double-click the drive letter to display the contents of the CD, and the double-click SETUP.EXE.

3. In this screen the installation software will determine which type of processor your CE/Pocket PC device has. Select the Next button to continue.

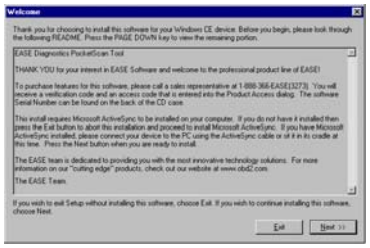

Pocket PC Install
Confirm that your device has one of the processors listed below then press the Next button. Press the Exit button to abort the installation.
NOTE: You must have ActiveSync installed and a PocketPC connected to your computer before proceeding. If you see an hourglass for a long period of time after pressing the Next button, it is waiting for a device to be connected to your PC through ActiveSync.
1. Pocket PC with SH3 Processor (e.g. HP Jornadas)
2. Pocket PC with Strong ARM processor (e.g. Compaq iPAQs, or any device with Microsoft PocketPC 2002)
Exit
Next >>

4. Choose the products you wish to install and select the Install button. In addition to the PocketScan Application, you must select at least one of the Scan Tool Versions.

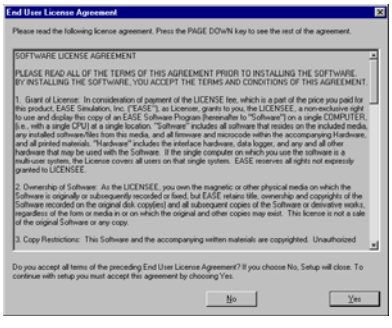
NOTE: (Not Installed) is displayed after the product name if it is not currently installed on the connected CE/Pocket PC device. (Installed) is displayed if it is.


Pocket PC Install
Choose the products you wish to install then press the Install button. Press the Exit button to abort the installation.
PocketScan Application Version 1.0.0.4 (Not Installed)
Generic OBD II Version 1.0.0.4 (Not Installed)
Ford Enhanced OBD II Version 1.0.0.4 (Not Installed)
Toyota Enhanced OBD II Version 1.0.0.4 (Not Installed)
Recording Samples Version 1.0.0.4 (Not Installed)
Exit
Install
Remove

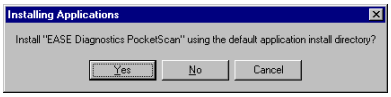
5. The Welcome Screen is displayed next. Press the Next button to continue with the install.


Welcome
EASE Diagnostics PocketScan Tool
THANK YOU for your interest in EASE Software and welcome to the professional product line of EASE!
The EASE Team.
Exit
Next >>

6. Please read the Software License Agreement. This agreement can also be found in Section II of the User's Manual. If you accept the terms of the License Agreement, select Yes to continue.


End User License Agreement
Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.
SOFTWARE LICENSE AGREEMENT
No
Yes

7. At this point, the installation program has enough information to start copying files to the CE/Pocket PC device. Press Yes to begin the copy process.



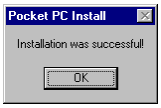
Each program that you chose to install will be installed individually. Press Yes to begin the copy process for each one.

8. At this time, please check the CE/Pocket PC device to see if there are any additional steps that are necessary to complete the installation.

Application Downloading Complete
Please check your mobile device screen to see if additional steps are necessary to complete this installation.
OK

NOTE: If more than one program is being installed, you will be returned to step 7.

9. At this time, installation is complete. Select OK to close the installation software.

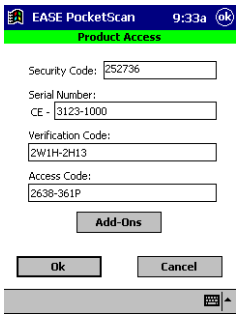


10. To start the EASE Software, pick PocketScan from the Start Menu on your CE/Pocket PC device.

IMPORTANT: BEFORE YOU CAN USE THE EASE SCAN TOOL SOFTWARE TO CONNECT TO A VEHICLE, YOU MUST CALL EASE AT 888-366-EASE (3273) FOR A PRODUCT ACCESS CODE.
See the next section for more information on product access codes.

VII. PRODUCT ACCESS CODES

IMPORTANT: BEFORE YOU CAN USE THE EASE SCAN TOOL SOFTWARE TO CONNECT TO A VEHICLE, YOU MUST CALL EASE AT 888-366-EASE (3273) FOR A PRODUCT ACCESS CODE.

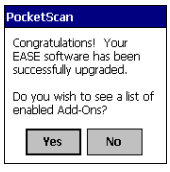


To obtain a product access code:

1.

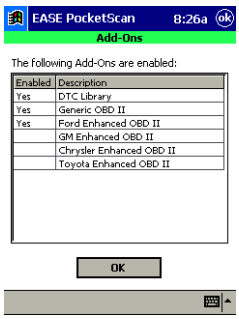
Start your Scan Tool Software.
2. Select [View] \ Product Access… from the menubar of the Scan Tool Software to open the Product Access Screen.
3. Enter your Serial Number. This number begins with CE- followed by an 8-digit number with a dash mark inserted after the first 4 digits. It can be found on a label on the installation software CD case.
4. Contact EASE by phone, fax or email. Be sure to have your Scan Tool Software opened to the Product Access Screen or have your Security Code and Serial Number available. The software generates the Security Code automatically.
    a. Phone – Call EASE at 888-366-EASE (3273) or 570-465-9060.
    b. Fax – Send a fax listing your Name, Company Name, Address and Phone Number along with your Security Code and Serial Number to 570-465-9061.
    c. Email - Send an email listing your Name, Company Name, Address and Phone Number along with your Security Code and Serial Number to info@obd2.com.
5. After you obtain your Verification Code and Access Code, carefully type them into the appropriate box in the Product Access Screen. Both the verification code and access code are 8 digits with a dash mark inserted after the first 4 digits. All letters are capitalized and 0 is always the number zero – never the letter O.

NOTE: The letter O is never used in any entry. It is always the number zero.


PocketScan
Congratulations! Your EASE software has been successfully upgraded.
Do you wish to see a list of enabled Add-Ons?
Yes
No

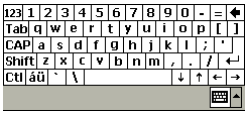
6. Tap the Ok button. A message box will display if your upgrade was successful. If you were unsuccessful, try re-entering your access code. Also verify that your software serial number and verification code are correct. If you are unable to upgrade your software, call EASE for assistance.

Tap the Add-Ons button to view which products you currently have access to. To purchase additional features for your software, contact EASE at 888-366-EASE (3273).



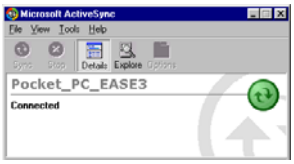
How do I enter text on my WIN CE/Pocket PC device?

To enter text in the Product Access Screen – tap in the entry box that you want to enter text in; the on-board keyboard will be displayed automatically. Tap the characters that you want to enter and then tap the keyboard icon to close the keyboard.



If the keyboard does not open automatically, tap the keyboard icon that is displayed on the bottom right hand side of the Product Access software screen. The on-screen keyboard will be displayed. Tap the icon again to close the keyboard.

VIII. UNINSTALLING THE SOFTWARE



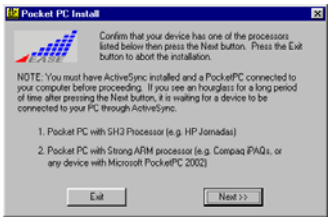
To uninstall the Scan Tool Software from the CE/Pocket PC device

1. Connect your CE/POCKET PC Device to your PC. The device must be powered on.

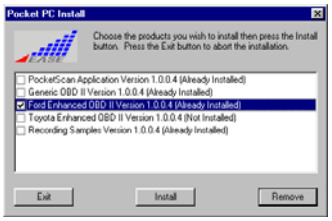
IMPORTANT: You must have ActiveSync installed on your PC. Microsoft ActiveSync is used to transfer files from your PC to your hand held device. This software is included when you purchase a CE/Pocket PC device.

2. Place the EASE software installation CD in your PC CD-ROM drive. The CD will start automatically.

NOTE: If the CD does not start automatically, double-click the My Computer icon on the Windows desktop. Locate the CD-ROM drive in the window, double-click the drive letter to display the contents of the CD, and the double-click SETUP.EXE.


Pocket PC Install
Confirm that your device has one of the processors listed below then press the Next button. Press the Exit button to abort the installation.
NOTE: You must have ActiveSync installed and a PocketPC connected to your computer before proceeding. If you see an hourglass for a long period of time after pressing the Next button, it is waiting for a device to be connected to your PC through ActiveSync.
1. Pocket PC with SH3 Processor (e.g. HP Jornadas)
2. Pocket PC with Strong ARM processor (e.g. Compaq iPAQs, or any device with Microsoft PocketPC 2002)
Exit
Next >>

3. In this screen the installation software will determine which type of processor your CE/Pocket PC device has. Select the Next button to continue.


Pocket PC Install
Choose the products you wish to install then press the Install button. Press the Exit button to abort the installation.
PocketScan Application Version 1.0.0.4 (Already Installed)
Generic OBD II Version 1.0.0.4 (Already Installed)
Ford Enhanced OBD II Version 1.0.0.4 (Already Installed)
Toyota Enhanced OBD II Version 1.0.0.4 (Not Installed)
Recording Samples Version 1.0.0.4 (Already Installed)
Exit
Install
Remove

4. Choose the products you wish to uninstall. Then tap the Remove button.

NOTE: (Not Installed) is displayed after the product name if it is not currently installed on the connected CE/Pocket PC device. (Installed) is displayed if it is.

IX. VEHICLE REQUIREMENTS

This product is designed to work with all OBD II compliant vehicles.

- 1996 or newer OBD II Compliant Vehicle (Includes All Domestic, Asian and European Vehicles)
- Some 1994 and 1995 vehicles are OBD II Compliant

For your vehicle to be OBD II compliant it must have a 16 pin DLC under the dash and the vehicle Emission Control Information label must state that the vehicle is OBD II compliant. This label is located on the inside of the hood on most vehicles. An example of this label is shown below. Note the last line of the label states that the vehicle is OBD II certified.

(Figure Above) DLC- Data Link Connector - a 16 position connector located under the driver side dash of most vehicles.

Vehicle Emission Control Information
This vehicle is equipped with electronic control systems. Engine idle speed, idle mixture and ignition timing are not adjustable. See Powertrain Control/Emissions Diagnosis Manual for additional information.
This vehicle conforms to U.S. EPA and California regulations applicable to 1998 model year new LEV passenger cars certified for sale in California. HSC 39037.05 Low Emission Motor Vehicle. OBD II Certified.
OBD II Certified

(Figure to Right) Vehicle Emission Control Information Label - located inside the hood of most vehicles. Use it to identify whether or not the vehicle is OBD II certified.

X. SETUP PROCEDURES

NOTICE
THIS PRODUCT IS DESIGNED TO OPERATE AT A VEHICLE'S NORMAL BATTERY VOLTAGE: 11-15 VOLTS DC. ANY OTHER VOLTAGE MAY DAMAGE THE EASE POCKETSCAN TOOL UNIT!

This section includes the following:

1. What comes with an EASE PDA Scan Tool?
2. Step by step instructions for setting up the EASE PDA Scan Tool
    a. Connecting EASE PDA Scan Tool to a WIN CE/Pocket PC device
    b. Connecting the EASE PDA Scan Tool to the Vehicle
    c. Using the EASE PDA Scan Tool Software to scan vehicle data.

1.0 What Comes With An EASE PDA Scan Tool Package?

An EASE PDA Scan Tool Package is provided with the following:

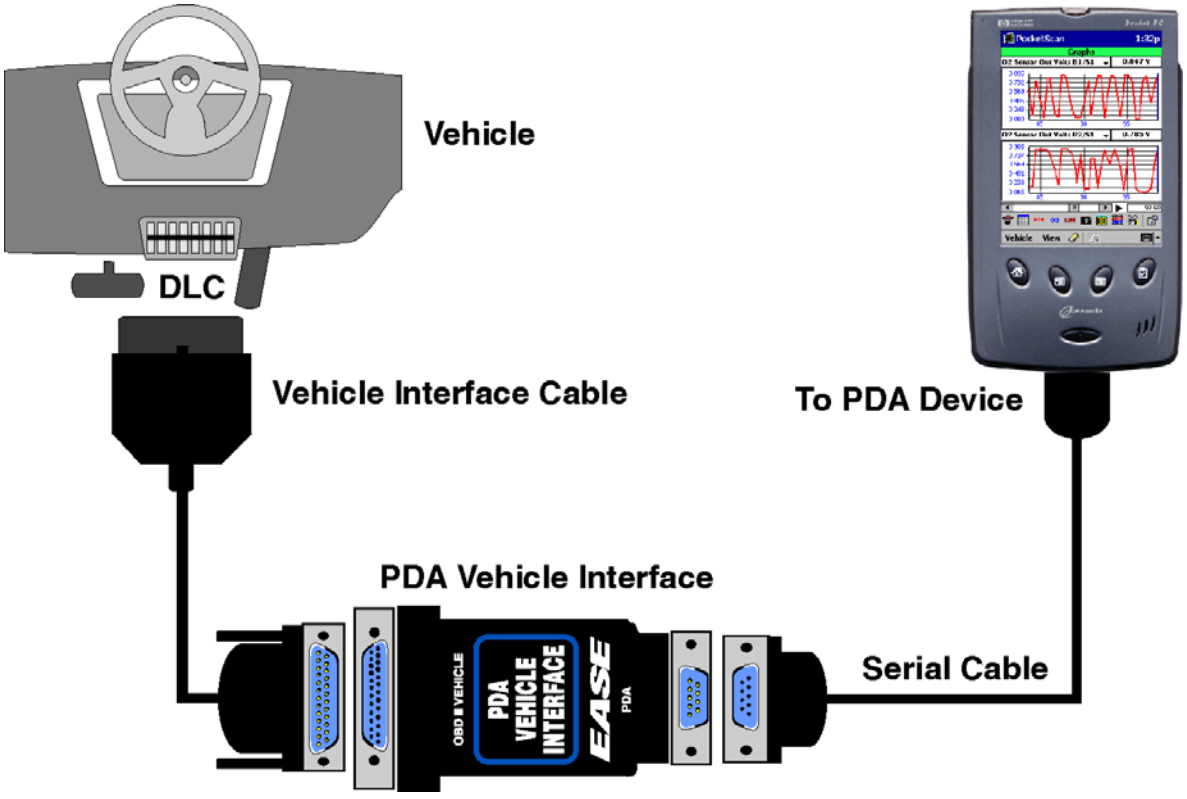
EASE PDA Vehicle Interface – Black interface box with a DB25 pin connector on one end and a DB9 pin connector. This unit can be used to connect to all OBD II compliant vehicles.

Vehicle Interface Cable (CABLE-OBD II) – A cable with an OBD II connector on one end and a DB25 on the other. This cable is used to connect to the vehicle's diagnostic connector.

Installation Software – Software used to install the PDA Scan Tool on the PDA Device.

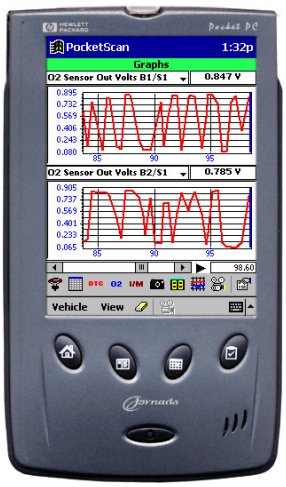
2.0 Step-By-Step Instructions For Setting Up The EASE PDA Scan Tool

The EASE PDA Vehicle Interface must be connected between the vehicle and PDA device to operate. The following sections explain how to make the proper connections.



2.1 Connecting the EASE PDA Vehicle Interface to a WIN CE/Pocket PC Device

Connect the PDA's Serial Cable* to the communication port on the WIN CE/Pocket PC device. Connect the other end to the 9-pin "PDA" connector on the PDA Vehicle Interface.



WIN CE/Pocket PC Device

WIN CE/Pocket PC Serial Cable

*To connect the EASE PDA Vehicle Interface to the WIN CE/Pocket PC Device, a serial cable that connects to your WIN CE/Pocket PC Device is required. If you use a docking cradle or a USB cable to transfer files between the desktop PC and WIN CE/Pocket PC Device, you must purchase a serial cable for your device in order to use the Scan Tool software to connect to a vehicle. This cable is not the same for all manufacturers or models. You must purchase the cable specified for your device. A list of supported WIN CE/Pocket PC models and their correct serial cable part numbers is listed in Appendix A.

2.2 Connecting the EASE PDA Vehicle Interface to a Vehicle

To connect the PDA Vehicle Interface to the vehicle, you must first locate the vehicle's diagnostic connector. The diagnostic connector is a 16-pin connector and is referred to as the Data Link Connector (DLC). This connector supplies power to the PDA Vehicle Interface.

After you have located the vehicle's DLC, connect one end of the OBD II Vehicle Interface Cable to the vehicle's diagnostic connector. Connect the other end of the cable to the 25-pin "OBD II Vehicle" connector on the PDA Vehicle Interface.

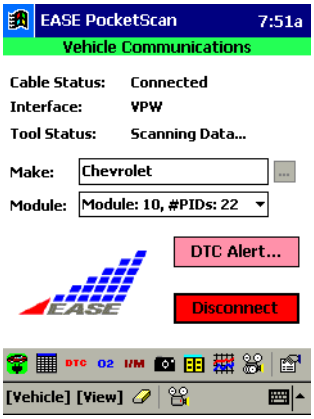
Where do I find the vehicle's DLC connector? On most OBD II vehicles the diagnostic connector is located under the driver's side dashboard in full view. In some vehicles it may be recessed behind a panel. Remove this panel for access to the connector. Other vehicles have a cap labeled "Diagnostic Connector" over the connector. Remove this cap to connect the PDA Vehicle Interface. Replace this cover when you are finished. To be OBD II compliant: if the diagnostic connector is not located under the driver's side dashboard, a label should be placed there to notify the owner where it is located. If you are unable to find the diagnostic connector, consult the vehicle's service manual for the exact location.

OBD II DLC- Data Link Connector - A 16-position connector located under the driver side dash of most OBD II vehicles.

2.3 Using the EASE PDA Scan Tool Software to Scan Vehicle Data

SAFETY FIRST!!! Review Section I. Safety Precautions.

1. **Connect the PDA Device to the EASE PDA Vehicle Interface.** Connect the PDA's Serial Cable to the serial port of the WIN CE/Pocket PC device. Connect the other end to the 9-pin "PDA" connector on the PDA Vehicle Interface.
2. **Connect the vehicle to the EASE PDA Vehicle Interface.** Connect one end of the Vehicle Interface Cable to the vehicle's diagnostic connector. Connect the other end of the cable to the 25-pin "OBD II Vehicle" connector on the PDA Vehicle Interface.
3. **Start the WIN CE/Pocket PC Scan Tool Software.** PocketScan
4. **In the Vehicle Communications Screen select the make of the vehicle that you are connecting to in the Make box.**
5. **Turn the vehicle's ignition switch to the "ON" position or start the vehicle**.
6. **Tap the Connect button in the Vehicle Communications Screen.** If the Connect button is not selectable, verify that the Cable Status is "Connected". If it is not, verify all cable connections.

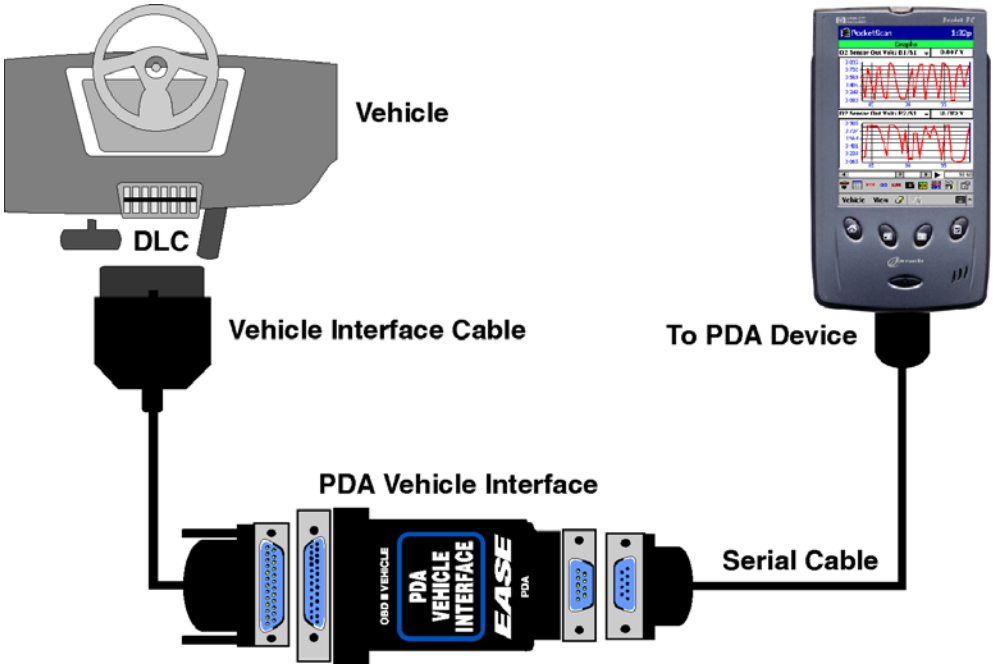


NOTE: If the Cable Status is "Connected" and the Connect button is not selectable, you may not have permission to access this data. If you have an access code, enter it on the Product Access screen. If you do not have an access code, contact EASE Diagnostics for more information.

7. **At this time the software will connect to the vehicle and begin the communication process.** The status of this connection is shown in Tool Status. If the software successfully linked to the vehicle, the Cable Status will be "Connected" and the Tool Status will be "Scanning Data…".

   If the software did not link, check all cable connections, make sure the ignition is ON, and that the OBD II connector is powering the EASE PDA Vehicle Interface. Also check that the PDA device battery power is not low.

   Once the software is scanning data, you can view the data parameters in grid, graph or meter format, look at DTCs, I/M monitors and O2 Test Results. See the Section XII. Software Operation for more information on using the software.



XI. AUTOMOBILE ON-BOARD COMPUTERS AND DIAGNOSTIC TROUBLE CODES

The following section provides information on

1. OBD II
2. Automobile on-board computers
3. The Malfunction Indicator Lamp (MIL)
4. Freeze Frame Data
5. Diagnostic Trouble Codes (DTC)
6. Inspection and Maintenance (I/M) Readiness Monitors

1.0 OBD II

Federal law required all vehicle manufacturers to meet On Board Diagnostics, Second Generation or OBD II standards by 1996. In order to meet this standard, the automobile's on-board computer must monitor and perform diagnostic tests on vehicle emissions to ensure that the vehicle is operating at an acceptable (legal) emission level. The maximum allowable emission level is set by the Federal Test Procedure (FTP).

All 1996 and newer passenger vehicles are OBD II compliant. All OBD II vehicles have the same 16 pin diagnostic connector or DLC. This eliminates the need to have a manufacturer specific connector to connect to your vehicle. (Some 1994 and 1995 vehicles have this connector, however, this does not mean that the vehicle is OBD II compliant.)

2.0 Automobile On-board Computers

Automobile on-board computers control engines, transmissions, brakes, traction and many other components. These computers have several names and acronyms depending upon the manufacturer and components they control. The most common name is PCM or Powertrain Control Modules. Other examples are Body Control Modules (BCM), Transmission Control Modules (TCM), Electronic Brake Control Module (EBCM) and Air Conditioning Control Module (ACM).

A variety of sensors, such as the oxygen sensor, throttle position sensor and manifold air temperature sensor, provide information to the on-board computer regarding the vehicle's engine operating conditions. Air Conditioning systems, vehicle air bags, and anti-lock brake systems also report to on-board computers.

On-board computers have a built in self testing system called self-diagnosis which means the on-board computer will monitor many or all of the vehicle's sensors and controlled devices for proper operation. A diagnostic trouble code or DTC is detected and set when one of the monitored devices is not functioning properly. This malfunction is stored into the on-board computer's memory as a DTC number that is related to a specific sensor or other problem. The computer can later be accessed using the EASE software or other scan tools and code reading devices to obtain the codes stored in the on-board computer memory.

3.0 Malfunction Indicator Lamp (MIL)

The Malfunction Indicator Lamp (MIL) is located in the instrument panel on the dashboard and is either a red or yellow labeled lamp. The MIL is normally off and will illuminate if a system or component either fails or deteriorates to the point where the vehicle emissions could rise 1.5 times above the FTP set emissions level.

4.0 Freeze Frame Data

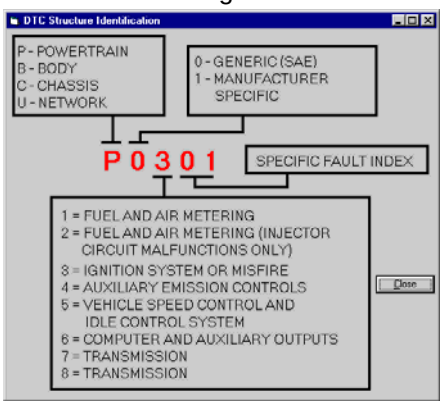
When the first emissions related powertrain DTC becomes stored, the PCM will capture (save) a block of current engine parameters. This list of parameters is called Freeze Frame Data and consists of a fixed list of parameters. For vehicles, which do not support all parameters, only the applicable ones are stored. When DTCs are cleared, the Freeze Frame Data is cleared from the vehicle's PCM.

5.0 Diagnostic Trouble Codes or DTCs

In the past malfunction code numbers varied between manufacturers, years, makes and models. OBD II requires that all vehicle manufacturers use a common Diagnostic Trouble Code or DTC numbering System. There is a generic DTC listing that all manufacturers must use. Since the generic listing was not specific enough, most manufacturers came up with their own DTC listing, which are called manufacturer specific codes. Both generic and manufacturer specific codes are 5 digits.

The first digit is a letter, which identifies the function of the device, which has the fault. This digit can be either

P	Powertrain
B	Body
C	Chassis
U	Network or data link code


DTC Structure Identification
P - POWERTRAIN
B - BODY
C - CHASSIS
U - NETWORK
0 - GENERIC (SAE)
1 - MANUFACTURER SPECIFIC
P 0 3 0 1
SPECIFIC FAULT INDEX
1 = FUEL AND AIR METERING
2 = FUEL AND AIR METERING (INJECTOR CIRCUIT MALFUNCTIONS ONLY)
3 = IGNITION SYSTEM OR MISFIRE
4 = AUXILIARY EMISSION CONTROLS
5 = VEHICLE SPEED CONTROL AND IDLE CONTROL SYSTEM
6 = COMPUTER AND AUXILIARY OUTPUTS
7 = TRANSMISSION
8 = TRANSMISSION
Close

The second digit is either a 0 or 1 and indicates whether the code is generic or manufacturer specific.

0	Generic
1	Manufacturer Specific

The third digit represents the specific vehicle system that has the fault. Listed below are the number identifiers for the powertrain system.

1	Fuel and Air Metering
2	Fuel and Air Metering (Injector Circuit Malfunctions Only)
3	Ignition System or Misfire
4	Auxiliary Emission Control
5	Vehicle Speed Control and Idle Control System
6	Computer and Auxiliary Outputs
7	Transmission
8	Transmission

The last two digits indicate the specific fault index.

On OBD II vehicles there are two different types of DTCs: Stored and Pending. For a DTC to become Stored, certain malfunction conditions must occur. The condition(s) required to Store a code are different for every DTC and vary by vehicle manufacturer. In order for some DTCs to become Stored, a malfunction condition has to happen more than once. If the malfunction conditions are required to occur more than once, the potential malfunction is called a Pending DTC. The DTC remains Pending until the malfunction condition occurs the required number of times to make the code Stored. If the malfunction condition does not occur again after a set time the Pending DTC will be cleared.

6.0 OBD II Inspection and Maintenance (I/M) Readiness Monitors

A monitor is a piece of software in one of the vehicle's on-board computers that has the job of monitoring a specific piece of the engine. There are two types of monitors: continuous and non-continuous. A continuous monitor runs continuously during vehicle operation. A non-continuous monitor requires enabling criteria to make it run. Some examples of enabling criteria are vehicle acceleration/deceleration to a certain speed, engine temperature and driving the vehicle at a certain speed for a period of time.

For OBD II vehicles, there is a fixed list of 11 monitors: 3 continuous and 8 non-continuous. The 11 monitors are not applicable for all vehicles. The Inspection & Maintenance screen of the software lists the availability and status of your vehicles monitors. In order to pass an emission inspection all of the supported monitors must be completed.

The Continuous Monitors are:

- Misfire
- Fuel System
- Components

The Non-Continuous Monitors are:

- Catalyst
- Heated Catalyst
- Evaporative System
- Secondary Air System
- A/C System
- EGR System
- Oxygen Sensor
- Oxygen Sensor Heater

XII. SOFTWARE OPERATION

1.0 Software Toolbar

Displayed at the bottom of the software screens, the Toolbar provides a quick and handy way to navigate. Just tap on the screen you wish to view. A description of each toolbar icon is given below followed by the section number where more information on the screen can be found.

Vehicle Communications – Section 2.0

Real Time Data Grid - Section 3.0

Meters – Section 4.0

Graphs – Section 5.0

Diagnostic Trouble Codes – Section 6.0

Freeze Frame – Section 7.0

Oxygen Sensor Test Results – Section 8.0

Inspection and Maintenance Monitors – Section 9.0

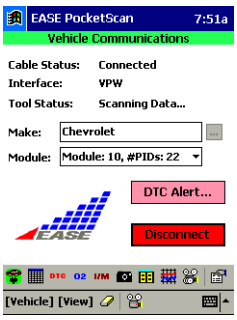
Recording Data – Section 10.0

Playing Back Recordings - Section 11.0

Reset Scan Buffer – Section 12.0

Preferences – Section 13.0

2.0 Vehicle Communications



The Vehicle Communications Screen displays information on the status of the software connection with the vehicle. To connect to the vehicle, tap on the Connect button. During the communication initialization the software will do the following:

- Determine if there are multiple modules on the vehicle bus
- Determine all the capabilities of the vehicle
- Obtain I/M Readiness Status data
- Obtain Oxygen Sensor Location and O2 test data
- Obtain any DTCs if present
- Obtain Freeze Frame data if present

Cable Status

- Connected is displayed if the EASE PDA Vehicle Interface is properly connected to the vehicle and PDA.
- Disconnected is displayed if the EASE PDA Vehicle Interface is not connected to the vehicle and PDA.

Interface - This is the OBD II communication interface type of the current connected vehicle.

- ISO 9141-2 - International Standardization Organization
- PWM - Pulse Width Modulation
- VPW - Variable Pulse Width
- ISO 14230 (KWP 2000) – Key Word Protocol 2000

Tool Status - The current status of the tool is displayed here.

- Browse: The software is currently not communicating with the vehicle.
- Scanning Protocols: The software is determining the communication protocol of the vehicle.
- Getting Capabilities: The software is communicating with and determining the capabilities of the vehicle.
- Scanning Data: The software is communicating with and receiving data from the vehicle.
- Play Back: The software is currently replaying previously recorded vehicle data.

Make - The Make of the vehicle can be selected here. This information does not have to be entered to connect to an OBD II vehicle. However, the correct Make must be selected to access enhanced data and to ensure the proper diagnostic trouble code description is displayed.

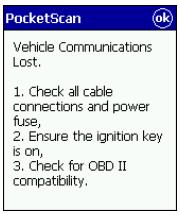
Module # - This is the bus address of the vehicle's on-board computer. The PID (Parameter Identification) count is also displayed here, which is the number of supported parameters for the on-board computer. Sometimes an OBD II vehicle will have more than one controller (on-board computer). If multiple controllers are detected during the initial communications scan, the software will list them in the Module # drop down box. The User can then select which controller they want to scan by selecting the desired controller from the drop down box. The software will default to the controller that contains the highest PID count. Normally the Controller Address with the highest PID Count is the engine controller and the second highest is the transmission controller.

DTC Alert - The DTC Alert is flashed when a DTC has been detected on the vehicle. Tap on this button to go to the DTC Screen to view the active DTC(s).

Connect/Disconnect button - Tap on this button to connect or disconnect communications from the software to the vehicle. This button is only selectable when the Cable Status is Connected.

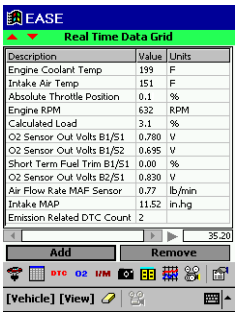
NOTE: If the Cable Status is "Connected" and the Connect button is not selectable (grayed out), you may not have permission to access this data. If you have an access code, enter it on the Product Access screen. If you do not have an access code, contact EASE Diagnostics for more information.

2.1 Vehicle Communications Lost


PocketScan
ok
Vehicle Communications Lost.
1. Check all cable connections and power fuse,
2. Ensure the ignition key is on,
3. Check for OBD II compatibility.

The Vehicle Communications Lost screen is displayed whenever communications have been lost to the vehicle. Check all cable connections, ensure the ignition key is on or the vehicle is running, and double check that the vehicle is OBD II compatible. Also, be sure that the battery power of the PDA device is not low. Low battery power could cause erratic and unreliable communication with the vehicle.

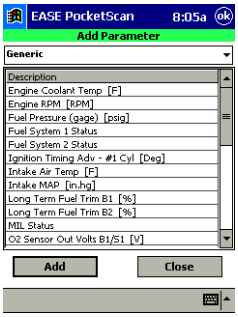
3.0 Real Time Data Grid


EASE
Real Time Data Grid
Description | Value | Units
Engine Coolant Temp | 199 | F
Intake Air Temp | 151 | F
Absolute Throttle Position | 0.1 | %
Engine RPM | 632 | RPM
Calculated Load | 3.1 | %
O2 Sensor Out Volts B1/S1 | 0.780 | V
O2 Sensor Out Volts B1/S2 | 0.695 | V
Short Term Fuel Trim B1/S1 | 0.00 | %
O2 Sensor Out Volts B2/S1 | 0.830 | V
Air Flow Rate MAF Sensor | 0.77 | lb/min
Intake MAP | 11.52 | in.hg
Emission Related DTC Count | 2
35.20
Add
Remove
[Vehicle] [View]

This screen contains a data grid for vehicle data parameters to be viewed while updating in real time (live). Displayed in the grid are the parameter descriptions, values, and units. Parameters can be viewed in either English or Metric units. Use the Preferences Screen to change the unit system. One to all the available parameters can be added to the grid to be scanned or recorded. If all the parameters do not fit in the data grid, use the scroll bar on the right to scroll through the list.

NOTE: In OBD II the more parameters you select to view, the slower the data updates. For the best sampling rate, limit the parameters that you add to the grid to be scanned.

Reorder Buttons - The red arrows are used to reorder the parameters in the data grid. Select the parameter that you want to move by tapping it. Then tap on the red up or down arrow to move the highlighted parameter to the desired position.

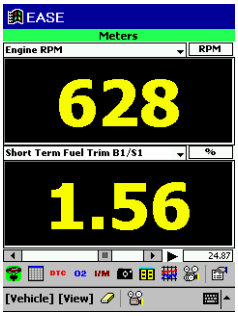


Add Button - To add a parameter to the grid, tap on the **Add** button to open the Add Parameter screen. Tap on the desired parameter(s) in the Add Parameter Screen to highlight them. Then tap on the **Add** button to add the highlighted parameters to the grid.

NOTE: If you want to add enhanced parameters to the grid, tap on the down arrow at the top of the screen to select an enhanced parameter listing. The correct vehicle Make must be selected in the Vehicle Communications Screen and you must have permission to access this data. See Section VII Product Access Codes for more information.

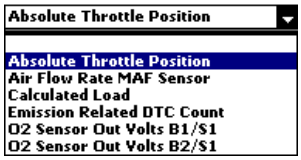
Remove Button - To remove a parameter from the data grid, tap on the desired parameter(s) to highlight them. Then tap on the **Remove** button to remove them from the grid.

4.0 Meters

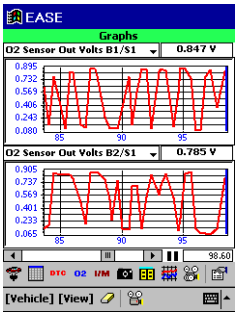


The meters are used to display the data parameters in a larger format. Two parameters can be displayed on the Meters screen at one time.

To change the data parameter displayed in a specific meter, select on the down arrow to the right of the parameter description to open a drop down box displaying the parameters. Tap on the parameter you want displayed in the meter. To close the drop down box without making any changes, select on the down arrow again.



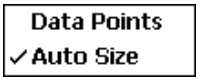
5.0 Graphs



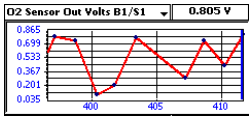
The Graph screen allows the user to view the data parameters in graphical format. The data parameter values are plotted on the vertical axis in reference to seconds on the horizontal axis. The bold vertical blue line is the frame cursor. The value of the parameter at the frame cursor is shown above each graph beside the parameter name. The position of the frame cursor can be moved, just select it and move it to the desired position.

To change the data parameter displayed in a specific graph, select on the down arrow to the right of the parameter description to open a drop down box displaying the parameters. Tap on the parameter you want displayed in the graph.

Double click on a graph to open the graph options. For each graph, you can select to display the data points and/or to have the graph auto size.



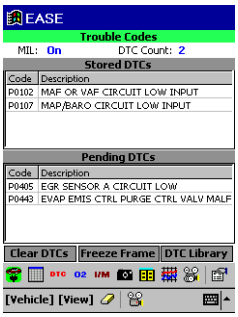
Data Points - Select this option to have the data points (sample points) displayed in the graph line.



Auto Size – Select this option to put the graph in auto size mode. In this mode the vertical axes of the graphs are automatically adjusted to fit the data.

❚❚ Pause Button -While scanning data, tap on the pause button to temporarily stop scanning data. Tap the play button to resume scanning.

6.0 DTC Diagnostic Trouble Codes (DTC)



The Trouble Codes Screen displays the vehicle's MIL Status, DTC Count, Stored DTCs and Pending DTCs.

What is a DTC? Automobile on-board computers have a built in self testing system called self-diagnosis which means the on-board computer will monitor many or all of the vehicle's sensors and controlled devices for proper operation. A diagnostic trouble code (DTC) is detected and set when one of the monitored devices is not functioning properly. On OBD II vehicles there are two different types of DTCs: Stored and Pending. See Section XI. for more information on DTCs.

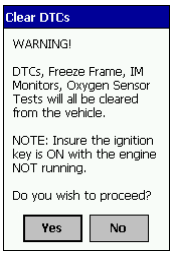
MIL Status - The status of the vehicle's MIL (Malfunction Indicator Lamp) is displayed here.

DTC Count - Displays the total number of emission related DTCs currently stored in the vehicle.

Stored DTCs - All of the vehicle's stored DTCs are listed in this section.

Pending DTCs - All of the vehicle's pending DTCs are listed in this section.

NOTE: The Make setting in the Vehicle Communications screen is used for determining the description of manufacturer specific DTCs. If manufacturer specific DTCs are displayed (P1XXX), the correct Make must be selected in the Vehicle Communications screen to ensure that the correct description is being displayed in the Trouble Code grids. See section 2.0 Vehicle Communications for more information on selecting the vehicle's Make. See Section XI. for more information on DTCs.

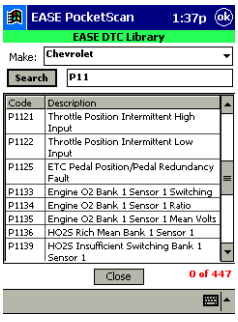

Clear DTCs
WARNING!
DTCs, Freeze Frame, IM Monitors, Oxygen Sensor Tests will all be cleared from the vehicle.
NOTE: Insure the ignition key is ON with the engine NOT running.
Do you wish to proceed?
Yes
No

Clear DTCs Button - Tap on this button to clear (erase) the Stored and Pending DTCs, Freeze Frame Data, Oxygen Sensor Test Data, and Inspection and Maintenance Monitors from the vehicle's on-board computer. After tapping this button, a confirmation screen is displayed to inform the user which vehicle information will be erased. Make sure that the vehicle's ignition key is in the ON position and the vehicle's engine is not running. For some vehicles unless these conditions are met the DTCs will not be cleared. Tap on the **Yes** button to continue with the clearing process or **No** to cancel.

Freeze Frame Button - Tap on this button to display the vehicle's Freeze Frame data. See section 7.0 Freeze Frame for more information.

DTC Library Button - Tap on this button to display the DTC Library screen. See the section 6.1 for more information.

6.1 DTC Library



The DTC Library Screen allows you to look up the description for a DTC Number. Both generic and manufacturer specific DTCs can be looked up. Use the DTC Library button in the DTC Screen or *View\DTC Library* from the menubar to open the DTC Library. See Section XI. for more information on DTCs.

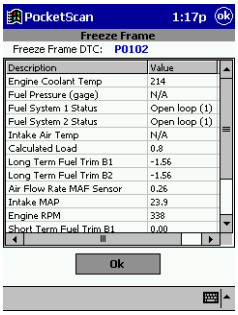
Make - Tap on the arrow to the right of the box to open a drop down box listing vehicle makes. It is important that you select the correct make if you are looking up a manufacturer specific DTCs (P1XXX) because manufacturer specific DTC's descriptions may differ between manufacturers. Choose Generic as the make to look up generic (P0XXX) codes.

Search - Type in a DTC number, word that you are looking for or start of a word or DTC in this box and then tap on the Search button. The results of the search will be displayed in the grid below.

NOTE: Delete the text you entered in the Search box and then select the Search button to return to the original look up.

DTC Code and Description grid - The DTC number and corresponding description is displayed in the grid. The scroll bar to the right of the DTC grid can be used to manually scroll through the DTC and description list. The scroll bar on the bottom of the grid can be used to move the grid left and right in order to see the complete description.

7.0 Freeze Frame


PocketScan 1:17p
Freeze Frame
Freeze Frame DTC: P0102
Description | Value
Engine Coolant Temp | 214
Fuel Pressure (gage) | N/A
Fuel System 1 Status | Open loop (1)
Fuel System 2 Status | Open loop (1)
Intake Air Temp | N/A
Calculated Load | 0.8
Long Term Fuel Trim B1 | -1.56
Long Term Fuel Trim B2 | -1.56
Air Flow Rate MAF Sensor | 0.26
Intake MAP | 23.9
Engine RPM | 338
Short Term Fuel Trim B1 | 0.00
Ok

The Freeze Frame Data Screen displays the vehicle's freeze frame data, if any.

What is Freeze Frame? In OBD II vehicles, when the first emissions related powertrain DTC occurs, the PCM will snapshot (save) a block of current engine parameters. This list of parameters is called Freeze Frame Data and consists of a fixed list of parameters. Vehicles may not support every parameter on the fixed list.

NOTE: When DTCs are cleared, the Freeze Frame data is also cleared.

Freeze Frame DTC - The DTC that caused the freeze frame is displayed here. N/A is displayed if there is no Freeze Frame data present on the vehicle.

Description and Value Grid - The grid displays a description of the freeze frame parameters and the values of the parameters at the time the DTC occurred. The scroll bar to the right of the grid can be used to manually scroll through the freeze frame parameter list. The scroll bar on the bottom of the grid can be used to move the grid left and right in order to see the complete descriptions and values.

NOTE: N/A is displayed for all the parameters if there is no Freeze Frame data. If there is Freeze Frame Data, N/A is displayed for a specific parameter if the vehicle does not support it.

8.0 O2 Oxygen Sensor Locations and Test Results Screens

EASE 1:18p
Oxygen Sensor Locations
Bank | Sensor | Status
1 | 1 | Present...
1 | 2 | Present...
1 | 3 | Not Available
1 | 4 | Not Available
2 | 1 | Present...
2 | 2 | Not Available
2 | 3 | Not Available
2 | 4 | Not Available
[Vehicle] [View]

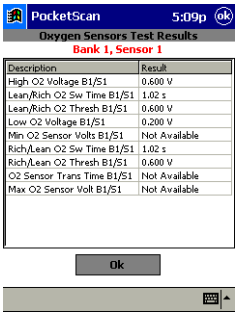
The Oxygen Sensor Locations Screen shows which Oxygen Sensors (O2) are present and which ones are not available on the current vehicle.

NOTE: Not all vehicles support Oxygen Sensor Tests.

Bank and Sensor Columns – Lists the oxygen sensor's bank and sensor location number.

Status Column – Lists whether or not an oxygen sensor is present on the vehicle.

- Present… is displayed if an Oxygen Sensor is present on the vehicle. Tapping on this status opens the Oxygen Sensors Test Results Screen for that sensor.
- Not Available is displayed for locations without an oxygen sensor.


PocketScan 5:09p
Oxygen Sensors Test Results
Bank 1, Sensor 1
Description | Result
High O2 Voltage B1/S1 | 0.600 V
Lean/Rich O2 Sw Time B1/S1 | 1.02 s
Lean/Rich O2 Thresh B1/S1 | 0.600 V
Low O2 Voltage B1/S1 | 0.200 V
Min O2 Sensor Volts B1/S1 | Not Available
Rich/Lean O2 Sw Time B1/S1 | 1.02 s
Rich/Lean O2 Thresh B1/S1 | 0.600 V
O2 Sensor Trans Time B1/S1 | Not Available
Max O2 Sensor Volt B1/S1 | Not Available
Ok

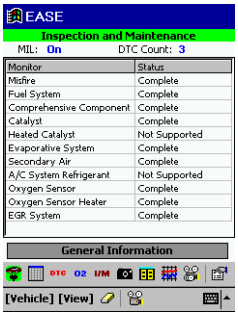
The Oxygen Sensor Test Results Screen shows the on-board oxygen sensor monitoring test results. Selecting **Present…** in the Status column of an O2 sensor listed in the Oxygen Sensor Locations Screen opens this screen.

Description - The available oxygen sensor test parameters are displayed in this column.

Result – The results of the oxygen sensor tests are displayed in this column. A value of **Not Available** is listed for tests not supported on the current vehicle.

Ok button- Tap on the **Ok** button to close the Oxygen Sensor Test Results screen and return to the Oxygen Sensor Locations screen.

9.0 I/M Inspection and Maintenance Monitors



The Inspection and Maintenance Monitors Screen displays the status of the vehicle's inspection and maintenance (I/M) monitors.

What are I/M Monitors? A monitor is a piece of software in one of the vehicle's on-board computers that has the job of monitoring a specific piece of the engine. There are two types of monitors: continuous and non-continuous. A continuous monitor runs continuously during vehicle operation. A non-continuous monitor requires enabling criteria to make it run. Some examples of enabling criteria are vehicle acceleration/deceleration to a certain speed, engine temperature and driving the vehicle at a certain speed for a period of time. For OBD II vehicles, there is a fixed list of 11 monitors: 3 continuous and 8 non-continuous. See Section XI. for more information on monitors.

MIL Status - The status of the vehicle's MIL (Malfunction Indicator Lamp) is displayed here.

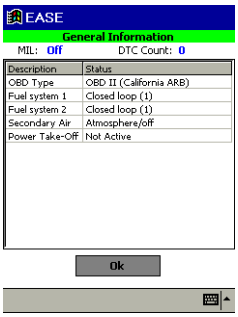
DTC Count - Displays the total number of emission related DTCs currently stored in the vehicle.

I/M Monitors Column - This column displays the title of the monitor. For OBD II vehicles, there is a fixed list of 11 monitors: 3 continuous (Misfire, Fuel System, and Comprehensive Component) and 8 non-continuous (Catalyst, Heated Catalyst, Evaporative System, Secondary Air System, A/C System, Oxygen Sensor, Oxygen Sensor Heater, EGR System).

I/M Monitor Status - This column displays the availability and status of the I/M Monitor.

- Complete – The monitor is supported and complete
- Not Complete – The monitor is supported and not complete
- Not Supported – The monitor is not supported by the current vehicle

NOTE: When DTCs are cleared, the Inspection and Maintenance Monitors are also cleared.



General Information Button – Select this button to display the General Information Screen. This screen contains miscellaneous vehicle status information. All vehicles do not support this information.

MIL Status - The status of the vehicle's MIL (Malfunction Indicator Lamp) is displayed here.

DTC Count - Displays the total number of emission related DTCs currently stored in the vehicle.

General Information Grid - the description and possible Status states of the General Information grid items are listed below.

OBD Type

- OBD II (California ARB)
- OBD (Federal EPA)
- OBD and OBD II
- OBD 1
- Not intended to meet any OBD requirements

Fuel System 1 Status and Fuel System 2 Status

- Open loop (1) - has not yet satisfied conditions to go closed loop
- Closed loop (1) - using oxygen sensor(s) as feedback for fuel control
- Open loop (2) – open loop due to driving conditions (power enrichment, deceleration enleanment)
- Open loop (3) – open loop due to detected system fault
- Closed loop (2) – closed loop but fault with at least one oxygen sensor - may be using single oxygen sensor for fuel control

Secondary Air Status

- Upstream of first catalytic converter
- Downstream of first catalytic converter inlet
- Atmosphere/off

Power Take Off

- PTO OFF
- PTO ON

Ok button - Tap on the **Ok** button to close the General Information screen and return to the I/M Screen.

10.0 Recording Vehicle Data

The Scan Tool Software can record, playback and save an unlimited amount of vehicle data. While connected to a vehicle, tap on the record icon in the bottom tool bar to enter record mode. The bottom part of the toolbar will change to indicate that the scan tool is in record mode. Saved recording files can be played back with the CE Scan Tool or exported and played back using the EASE PC Scan Tool Software.

10.1 Step-by-Step Instructions for Recording Data

1. Connect to the vehicle.
2. Go to the Data Grid and **Add** the parameters that you want to record.
3. Tap the record icon to enter record mode (Important: The software is not recording data at this time)
4. Tap the record button in the record toolbar to start recording.
5. Tap the save button to save the recording.

10.2 Record Toolbar

The bottom menu of the software changes depending on what mode the software is in. When the record icon is tapped, the record toolbar is displayed. The record icon is only selectable when the software is connected to a vehicle.

Scanning Data Mode

Record Toolbar – Pause Mode

Record Toolbar – Record Mode

Record Icon – Tap on this icon to enter record mode. The record icon is only selectable when the software is connected to a vehicle.

Record Data Button – Tap this button to start or resume recording vehicle data.

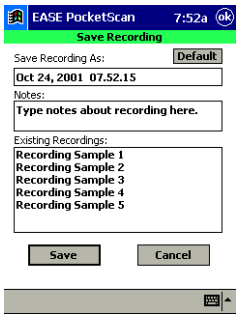
Pause Indicator – This indicator flashes when the software is paused in record mode. The software is not recording data at this time.

Record Indicator – This indicator flashes when the software is recording vehicle data.

Pause Button - Tap on this button to pause the current recording.

Save Button – Tap on this button to save the record session.

10.3 Save Recording Screen



Tap on the Save button to save the current record session. The Save Recording screen will be displayed. In this screen you can assign the recording name and enter notes on the recording.

Default Button – Tap on the **Default** button to name the current recording with a default name. The default name consists of the current date and time. To name the recording otherwise, enter the desired name in the box below the Default button.

Notes – You can enter notes on the record session here.

Existing Recordings – All recordings currently saved in the PDA are listed here.

Save button – Tap on the **Save** button to save the recording.

Cancel button – Tap on the **Cancel** button to exit the screen without saving the current recording.

11.0 Playing Back Recordings

Tap the icon to display the Recordings screen. A list of the recordings currently saved on the CE Device is displayed in the recordings grid. In this screen you can choose to play back a recording using the WIN CE Scan Tool or to upload it to the PC to view it with the EASE PC Scan Tool or to share it with other users.

11.1 Step-by-Step Instructions for Playing Back a Recording

1. Tap the Playback icon to open the Recordings Screen.
2. Play Choose a recording from the Recordings grid and then tap the Play button.
3. After the recording loads, tap the grid, graph or meter icon.
4. In the Real Time Data Grid, Graph, or Meters Screen tap the Playback button to start playback.
5. During playback,
   a. Tap the pause button to temporarily stop playback.
   b. Use the track bar to scroll forward and back through the recording.
   c. Use the forward and backward arrows to step thru the recording frame by frame.
6. Tap the End Playback button in the Vehicle Communications Screen to end playback.

11.2 Playback Toolbar

24.00 The Playback Toolbar is displayed during recording playback in the Real Time Data Grid Screen, Graph Screen and Meters Screen.

	Playback Button – Tap this button to playback the recording.
	Pause Button – Tap this button to temporarily stop the playback.
	Previous Frame – While the recording is paused, tap this button to go to the previous frame of recorded data.
	Track Bar – While the recording is paused, use the track bar to quickly scroll forward or back through the recorded data.
	Next Frame – While the recording is paused, tap this button to go to the next frame of recorded data.
24.00	Frame Counter – This is the time of the frame currently being played back. The time is shown in seconds and represents the time from the start of the recording.

11.3 Recordings Screen

Recordings grid – A list of recordings currently stored on the CE device is displayed in the grid. The Uploaded column shows the upload status of the corresponding recording. If the recording has never been uploaded to a PC, the status shows **No**.

Notes – If any notes were entered when the selected recording was saved, they are displayed in this box.

Play button - Tap on the desired recording and then tap the **Play** button in order to playback the selected recording using the WIN CE Scan Tool.

Upload button – The upload button is a feature that allows the CE device to be used as a companion device to the EASE PC Based Scan Tool. See Section 11. 4 for more information.

Remove button - Tap on the desired recording and then tap the **Remove** button to delete that recording from the CE device. Multiple recordings can be selected and deleted at the same time.

11.4 Step-by-Step Instructions for Uploading a File To The PC Scan Tool

1. Connect the CE device to the PC COM port using a serial cable or cradle.

IMPORTANT: Microsoft Active Sync cannot be configured to use the PC port that you are connecting the CE Device to.

2. In the EASE PC Scan Tool OBD II Generic Scan Tool software, open the Data Logger Screens by clicking the Data Logger icon from the toolbar. Go to the Retrieve Recorded Data tab screen.
3. In the WIN CE Scan Tool Recordings Screen, tap the recordings you want to upload to the PC Scan Tool and then tap the Upload button. Multiple recordings can be selected and uploaded at the same time
4. The uploaded recordings will be displayed in the Data Logger's Retrieve Recorded Data tab screen on the PC.
5. Recordings can be viewed and saved using the PC Scan Tool.

12.0 Reset Scan Buffer

Tap on the Reset Scan Buffer icon to reset or clear the scan buffer. When the scan tool is scanning real time vehicle data, it stores previous scan data in a buffer so that the user can quickly review it in the graphs screen. Select this button to clear all the frames of data from the data buffer. This will reset the frame number counter.

13.0 Preferences Screen

This screen allows the user to set program preferences.

Unit Display – Parameter units can be displayed in English or Metric. Tap on the circle next to your desired unit of measure.

Product Access – Tap this button to open the Product Access Screen. See Section VII. for more information.

Word Wrap – If a data parameter or DTC description is too long to fit on a single line in the Real Time Data Grid or DTC Library, the text will wrap into multiple lines so that the entire name is shown in the grid. To turn off this feature, deselect this checkbox. When this feature is turned off all descriptions are limited to a single line and you may not be able to see the entire description.

Create Dump File – You may be directed by technical support to use this feature.

14.0 Safety Precautions Screen

After starting the Scan Tool Software, the user is first informed of safety precautions to follow when working around vehicles. Tap on the **Ok** button to continue. See Section I Safety Precautions for a listing of vehicle safety precautions.

IMPORTANT: NEVER ATTEMPT TO OPERATE THIS SOFTWARE AND DRIVE THE VEHICLE AT THE SAME TIME.

15.0 Exit Program

To exit the Program, select [Vehicle]\Exit from the menubar.

Appendix A – Serial Cable Part Numbers

To connect the EASE PDA Vehicle Interface to the WIN CE/Pocket PC handheld a serial cable is required. If you use a docking cradle or a USB cable to transfer files between the desktop PC and WIN CE/Pocket PC Device, you must purchase a serial cable for your device in order to use the Scan Tool software to connect to a vehicle. This cable is not the same for all manufacturers or models. You must purchase the cable specified for your device. A list of supported WIN CE/Pocket PC models and their correct serial cable part numbers follows.

If your PDA is not listed, contact EASE for more information at 888-366-3273. If your PDA is running Windows CE Version 3.0, Pocket PC 2002 or Pocket PC 2003, has an SH3, MIPS, StrongARM or X-Scale processor, and has a serial (9-pin) cable, then it should work with the EASE WIN CE Scan Tool software.

Supported PDA	Serial Cable Part Numbers
HP Jornada 520/540 Series	F1819A
HP Jornada 560 Series	F1819A
Compaq IPAQ H 3100 Series	191008-B21
Compaq IPAQ H 3600 Series	191008-B21
Compaq IPAQ H 3700 Series	191008-B21
Compaq IPAQ H 3800 Series	250178-B21
Audiovox Maestro PDA1032C	CRS1032B (Serial Cradle)
Intermec Model 70	871-13-030
Intermec 700 Series	226-999-001
Symbol PPT 2800	25-38383-01(Cable only) CBL2700-100U (Kit)
Symbol PDT 8100	25-38383-01(Cable only) CBL2700-100U (Kit)
Toshiba Model e570	PA3150U-1ETC
Casio Cassiopeia E-200 Series	JK-580CA
Casio Cassiopeia E-125	JK-580CA
Casio Cassiopeia EM 500 Series	JK-580CA
Casio Cassiopeia EG-800 Series	JK-580CA
Casio Cassiopeia IT-70 Series	JK-580CA
Casio Cassiopeia IT-700 Series	JK-580CA